WHAT IS CLAIMED IS:

1. An optical disk apparatus performing either one of recording and reproduction of an optical disk in which groove-shaped groove tracks and land tracks present between the groove tracks are alternately connected to each other in a spiral shape, comprising:

a recording and reproduction unit for recording a signal in at least one continuous groove track and at least one continuous land track, and then reproducing the signal from the groove track and the land track;

a detector for detecting a quality of the signal recorded and reproduced by the recording and reproduction unit;

a control parameter setting unit for setting a control parameter related to at least one of the recording and the reproduction of the optical disk; and

a controller for changing the control parameter set by the control parameter setting unit, repeating the recording and reproduction performed by the recording and reproduction unit and detection performed by the detector every time the control parameter is changed, and determining the control parameter based on the quality of the signal detected by the detector.

2. An optical disk apparatus according to claim 1, wherein the controller obtains a control parameter common to the groove track and the land track.

3. An optical disk apparatus according to claim 1, wherein the controller obtains control parameters for the groove track and the land track, separately.

4. An optical disk apparatus according to claim 3, wherein the control parameter setting unit sets an average value of the control parameter of the groove track and the land track obtained by the controller.

5. An optical disk apparatus according to claim 3, wherein the control parameter setting unit sets the control parameter of the groove track and the land track obtained by the controller, separately.

6. An optical disk apparatus according to claim 3, wherein the recording and reproduction by the recording and reproduction unit, the detection by the detector, and the determination by the controller are performed at two positions apart from each other on the optical disk, and a control parameter corresponding to each of the positions is obtained in order to be set; and

when at least one of the recording and the reproduction is performed between the respective positions on the optical disk, a control parameter in accordance with the position at which at least one of the recording and the reproduction is performed is obtained in order to be set based on the control parameter corresponding to each of the positions.

7. An optical disk apparatus according to claim 1, wherein the control parameter is at least one of a focus position of a light beam radiated for at least one of the recording and the reproduction of the optical disk, a tilt angle of the light beam with respect to the optical disk, an intensity of the laser beam, and an equalizer characteristic of the laser beam.

8. An optical disk apparatus according to claim 1, wherein the controller sets a plurality of kinds of control parameters, separately, and repeats setting of each of the control parameters in accordance with a detection result of the detector.

9. An optical disk apparatus according to claim 1, wherein a number of sectors of the groove track to be recorded and reproduced by the recording and reproduction unit is equal to a number of sectors of the land track to be recorded and reproduced by the recording and reproduction unit.

10. An optical disk apparatus according to claim 1, wherein the detector detects at least one of a byte error rate of the signal recorded and reproduced by the recording and reproduction unit, a jitter of the signal, a bit error rate of the signal, a resolution of the signal, a symmetry of the signal, and a modulation of the signal.

11. A method for setting a control parameter of an optical disk apparatus performing at least one of recording and reproduction of an optical disk in which groove-shaped groove tracks and land tracks present between the groove tracks are alternately connected to each other in a spiral shape, comprising:

a recording and reproduction step of recording a signal in at least one continuous groove track and at least one continuous land track, and then reproducing the signal from the groove track and the land track;

a detection step of detecting a quality of the signal recorded and reproduced during the recording and reproduction step;

a control parameter setting step of setting a control parameter related to at least one of the recording and the reproduction of the optical disk; and

a control step of changing the control parameter set during the control parameter setting step, repeating the recording and reproduction performed during the recording and reproduction step and the detection performed during the detection step every time the control parameter is changed, and determining the control parameter based on the quality of the signal detected during the detection step.

12. A method for setting a control parameter of an optical disk apparatus according to claim 11, wherein a control parameter common to the groove track and the land track is obtained during the control step.

13. A method for setting a control parameter of an optical disk apparatus according to claim 11, wherein control parameters are obtained for the groove track and the land track, separately, during the control step.

14. A method for setting a control parameter of an optical disk apparatus according to claim 13, wherein an average value of the control parameter of the groove track and the land track obtained during the control step is set during the control parameter setting step.

15. A method for setting a control parameter of an optical disk apparatus according to claim 13, wherein the control parameter of the groove track and the land track obtained during the control step are separately set during the control parameter setting step.

16. A method for setting a control parameter of an optical disk apparatus according to claim 13, wherein the recording and reproduction during the recording and reproduction step, the detection during the detection step, and the determination during the control step are performed at two positions apart from each other on the optical disk, and a control parameter corresponding to each of the positions is obtained in order to be set; and

when at least one of the recording and the reproduction is performed between the respective positions on the optical disk, a control parameter in accordance with the position at which at least one of the recording and the reproduction is performed is obtained in order to be set based on the control parameter corresponding to each of the positions.

17. A method for setting a control parameter of an optical disk apparatus according to claim 11, wherein the control parameter is at least one of a focus position of a light beam radiated for at least one of the recording and the reproduction of the optical disk, a tilt angle of the light beam with respect to the optical disk, an intensity of the laser beam, and an equalizer characteristic of the laser beam.

18. A method for setting a control parameter of an optical disk apparatus according to claim 11, wherein, during the control step, a plurality of kinds of control parameters are separately set, and setting of each of the control parameters is repeated in accordance with a detection result obtained during the detection step.

19. A method for setting a control parameter of an

optical disk apparatus according to claim 11, wherein a number of sectors of the groove track to be recorded and reproduced during the recording and reproduction step is equal to a number of sectors of the land track to be recorded and reproduced during the recording and reproduction step.

20. A method for setting a control parameter of an optical disk apparatus according to claim 11, wherein at least one of a byte error rate of the signal recorded and reproduced during the recording and reproduction step, a jitter of the signal, a bit error rate of the signal, a resolution of the signal, a symmetry of the signal, and a modulation of the signal is detected during the detection step.